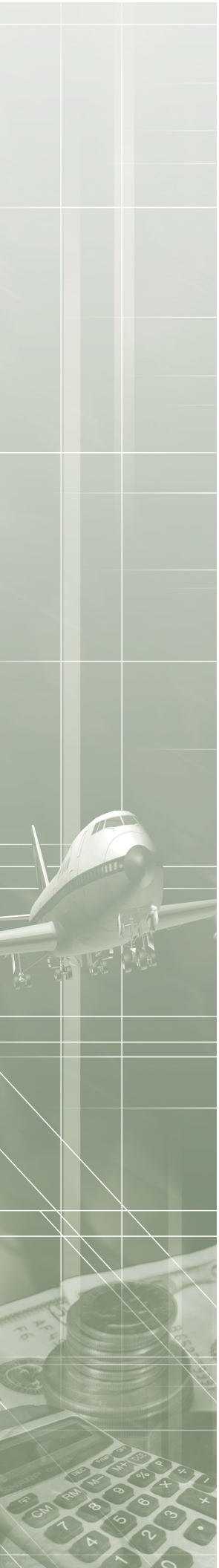

INTRODUCTION TO PRICING

Table of Contents

OVERVIEW--THE PRICING PROCESS

Pricing is a necessary part of any acquisition process. Pricing generates the data needed by procurement officials to make the most advisable decisions possible. If performed efficiently, pricing can save millions of dollars. The Federal Aviation Administration's Acquisition Management System (FAA AMS) provides direction on the use of pricing within the acquisition process. This handbook fully complies with the FAA AMS and provides additional guidance for analysts.

Pricing, as defined in this handbook, is the technique used by the procuring official to establish a "fair and reasonable price". Price analysis and cost analysis are the two basic techniques used to accomplish this purpose. Price analysis should always be performed. Under certain circumstances, cost analysis also needs to be performed. The Contracting Officer should obtain an amount of data sufficient to determine that the price is fair and reasonable, refraining from requiring more data than is necessary to arrive at that conclusion.

Although price analysis has always been required, the FAA AMS has provided additional emphasis. This emphasis focuses on the utilization of pricing techniques to expedite the procurement process. If proper preparation for price proposals is done for an acquisition, cost analysis can generally be avoided. (Often cost analysis is also used as a substitute for good price analysis.) The results of this up-front preparation will support better contract line item number (CLIN) structure for Section B, efficient cost requirements for Section L, and more effective evaluation factors for Section M. Subsequently, the price analyst can evaluate these more efficiently. Figure 1 provides an overview of the pricing process.

This introduction will address what is a "fair and reasonable" price and provides a brief discussion of cost analysis and price analysis so that the analyst will have an overview of the complexities and issues he must address. In Part I, Chapter 1 discusses key aspects of planning; Chapter 2 covers steps 1, 3, 4, and 6 of the proposal evaluation process; Chapter 3 discusses step 2; and Chapter 4 discusses step 5. Parts II and III of the Handbook address the specific elements of price analysis and cost analysis in sufficient detail to support the analyst in the acquisition process. Part IV addresses special situations such as claims and requests for equitable adjustments (REAs) and provides a discussion of cost accounting standards (CAS) and Cost Principles.

FAIR AND REASONABLE PRICE

A fair and reasonable price--the ultimate goal of pricing analysis--is one that is fair and reasonable to both parties. All procurement files must include a statement justifying the fair and reasonableness of the price. The extent of the justification will be dependent on the specific circumstances. Samples of

fair and reasonable justifications can be found at the end of this section. The following two sections briefly discuss both of these concepts.

Fairness

The concept of fairness is a relative term. Perception of what is fair depends on each party's perspective. The Government's perspective of a fair price is one that covers the risks of performance while providing a reasonable profit. In contrast, the contractor's concept of fairness is a price that covers the risks of performance and maximizes profit and return to shareholders.

It is important to establish an equitable price. In the case where the price is too low, the contractor may be impacted such that quality suffers and schedules are not met. In a worst case scenario, a contractor may go bankrupt, leaving the FAA with one less source of supplies or services and a need to reprocure the contract.

Reasonableness

What is reasonable depends on the market environment and the total cost of the acquisition. Supply, demand, general economic conditions, and competition affect price reasonableness. What is reasonable today may not be reasonable tomorrow.

> A cost is **reasonable** if by its nature and amount, it does not exceed that which would be incurred by a prudent person in the conduct of competitive business
>
> (FAA AMS Procurement Guidance T3.3.2A.2.c (Contract Cost Principles).

The forces of supply and demand generate an "untainted" market price only when competition exists, i.e., the industry is not dominated by powerful monopolies or oligopolies. When the market structure does not facilitate effective price competition, greater bargaining power can rest with the contractor or the buyer (monopolies).

COST AND PRICE ANALYSIS

Cost and price analysis serves the same purpose--determining what is a fair and reasonable price--but each type of analysis derives the determination differently. The following paragraphs define price analysis and cost analysis, and describe the advantages of both.

> **Direct Costs** are any costs that can be identified specifically with a particular cost objective.
>
> **Indirect costs** are any costs not directly identifiable with a single, final cost objective, but identified with two or more final cost objectives or an intermediate cost objective.

Cost and pricing data are all facts at the time of the price agreement that the seller and buyer would reasonably expect to affect price negotiations (FAA AMS, Appendix C, Definitions)

Price Analysis

Price analysis involves evaluating a proposal by comparing it with benchmarks of reasonableness. Examples of these benchmarks include:

- Other proposed prices of competitors received in response to the solicitation,
- Market survey data,
- Past prices,
- Parametric estimates,
- Competitive catalog or market price lists or equivalents, and
- Independent Government Cost Estimates (IGCEs).

Price analysis always involves some form of comparison and does not look at the separate cost elements and proposed profit. Part II of this Handbook (Price Analysis) will address this in more detail.

Cost Analysis

Cost analysis is the systematic examination of cost elements. Cost elements are the individual items or building blocks that form the total cost of a proposed estimate. They consist of direct costs and indirect costs allocable to the proposed effort.

Cost analysis enables the analyst to form an opinion on the degree to which individual cost elements and associated proposed profit or fee represent what the work should cost, given reasonable economy and efficiency. It involves a review of the judgment factors used in projecting the estimated costs.

Cost and Pricing Data

Cost and pricing data are verifiable factual data upon which estimates of future costs are made. The data consist of all the facts that reasonably contribute to the soundness of estimates. The following is a partial list of typical cost and pricing data:

- Vendor quotations on material items and components;
- Nonrecurring costs such as development and startup costs;
- Information on changes in production methods and purchasing volumes;
- Data supporting projections of business prospects and objectives;
- Unit-cost trends such as labor efficiency;
- Data supporting make-or-buy decisions;
- Estimated resources necessary to obtain business goals; and
- Information on management decisions that could significantly impact costs.

Cost Analysis Techniques and Procedures

An overview of techniques and procedures involved in cost analysis is listed below. Part III (Cost Analysis) will discuss specific methodologies and tools for analyzing and evaluating individual cost elements. Below is a list of these methodologies.

- Review of proposal to ensure that all data required to make the proposal current, accurate, and complete have been submitted or identified.
- Evaluation of cost elements and verification of cost and pricing data:
  - Review of necessity and reasonableness of proposed costs;
  - Projection of offeror's costs trends;
  - Quantitative and qualitative appraisal of the technical proposal; and
  - Application of audited or negotiated cost rates.
- Comparisons of individual cost elements with:
  - Actual costs previously incurred by the same offeror;
  - Previous cost estimates for the same or similar items;
  - Other cost estimates (proposals) received in response to the Government's request;
  - Independent Cost Estimates (ICEs); and
  - Forecasts of planned expenditures.
- Analysis of make-or-buy program reviews in the evaluation of subcontract costs.

Cost and Price Analysis Compared

Price analysis is usually cheaper and faster than cost analysis in determining if costs are fair and reasonable. Price analysis is sufficient when the contracting officer determines that any of the following conditions are present.

- Adequate price competition;

  Adequate price competition may exist when: 1.) two or more responsible offerors competing independently submit priced offers responsive to the agency's expressed requirement; 2.) there is a reasonable expectation based on market research or other assessment that two or more responsible offerors competing independently would submit priced offers responsive to the screening information request's expressed requirement even though only one offer is received from a responsible responsive offeror; or 3.) price analysis clearly demonstrates that the proposed price is reasonable in comparison with current or recent prices for the same or similar items purchased in comparable quantities, under comparable terms and conditions under contracts that resulted from adequate price competition.

  [FAA AMS Procurement Guidance T3.2.3A.1.b]

- Proposed prices are based on established catalog or market prices;
- Commercial items are being procured; or
- Prices are set by law or regulation.

Although cost analysis is generally more time consuming and expensive, it is a necessary complementary process if the above conditions are not satisfied. Cost analysis provides additional insight to allow the procuring official to determine the "fair and reasonable" price. For instance, cost analysis involves gathering information from many different sources such as engineers, auditors, end users, etc. Coordinating inputs from these groups and then assimilating their recommendations into a fair and reasonable price recommendation takes a significant amount of time and money, which is why cost analysis tends to be more expensive than price analysis.

Use of Cost Analysis and/or Price Analysis

The choice between cost and/or price analysis for competitive procurements or sole source procurements is a complex one to make and may be situation dependent. The AMS allows the contracting officer to make the decision based on judgment. Price analysis should always be performed; however, as discussed in the section titled "Cost and Price Analysis Compared", if certain requirements are not met, cost analysis is also required. Generally this occurs for developmental contracts (cost reimbursement types), where commercial prices have not been established. If the procurement is sole source, cost and price analysis should be used (see Table 1). Cost analysis is not a substitute for price analysis.

Table 1. Type of Analysis Required By Type of Procurement

Type of Procurement	Type of Analysis
Sole Source	Cost and Price Analysis
Competitive	Price Analysis (Cost Analysis also, if market prices not established)

The major differences in the role of the pricing analyst between competitive and sole source procurements occur in the early planning stages and in the evaluation approach. In a competitive procurement the analyst must be more involved in the initial planning to ensure that Section B, L, and M of the screening information request reflect proper cost evaluation data requirements. In a sole source evaluation less involvement in early planning is required, but the actual evaluation is much more detailed and often requires one or more fact-finding trips.

SUMMARY

Price analysis establishes fair and reasonable prices. In some circumstances cost analysis is a necessary complement to price analysis. Part I of this Handbook (Pricing Process) will address the process of pricing. Price analysis and cost analysis will be addressed in Parts II and III, respectively. Part IV addresses areas of special interest for pricing.

Examples of Price Analysis Articulations

Contracting Officers, in writing an "Award Justification" or similar document summarizing the rational basis for a contract award decision, must include an articulation of the rationale used in determining the reasonableness of the contract price and, where appropriate, costs. The following three examples demonstrate acceptably articulated price or cost analyses from actual contract award summaries. These examples were written by contracting officers in actual cases, but with company names changed.

EXAMPLE 1, Multiple Offers and Price is Close to IGCE

Analysis of Technical Rating vs. Price

EXCEPTIONAL	**PRICE (total / base 6 mo. period)**
ABC, Inc.	$126,900 / 11,646.00
ACCEPTABLE	**PRICE (total / base 6 mo. period)**
DEF, Inc.	$208,875.36 / $20,887.56
GHI, Inc.	$270,186.00 / $24,738.00
MARGINAL	**PRICE (total / base 6 mo. period)**
KLM, Inc.	$ 93,000.00 / $9,000.00

While KLM, Inc. offers the lowest price, it has a technical rating of only "marginal" (as explained in the technical evaluations set forth in the Acquisition Summary Report). The next higher price is that offered by ABC, Inc. that is rated as "exceptional." The government estimate, as articulated in the PR, is right at $11,700. Thus, the offer of ABC, Inc. is per se reasonable. The other two offers are substantially higher prices and only technically "acceptable."

Although the offer of ABC, Inc. is 36% higher in total, and 29% higher in the six-month base period, I conclude that it offers the "best value" to the government, in comparison to the marginally rated KLM, Inc.

EXAMPLE 2, Determining Price Reasonableness where there is Departure from the IGCE

I did not request cost and pricing data, assuming that adequate price competition existed in that we had two or more offerors who, competing independently, submitted priced offers responsive to the solicitation in accordance with AMS 3.2.3A.1.a.(3)(b)(ii) AMS Procurement Guidance T3.2.3(A)(1)(a)(1)(b)(i). To determine the reasonableness of ABC, Inc.'s price, I considered the following factors, in accordance with AMS 3.2.3A.1.a(3)(b):

Recent Price Data – This type of tower has not been procured by the FAA XX Region since the 1980's.

Degree of Competition Attained – Three independent offers ranging from a low of $135,815 to a high of $209,400. Proposed prices, in comparison with the IGCE, as follows:

Company	Proposed Price
1. ABC	$135,815.00
2. SOS	$157,800.00
3. QSY	$209,400.00
IGCE = $112,727.00	

Availability of Independent Cost Estimate/Data – The independent government cost estimate (IGCE) prepared by the platform engineer was based in a great part on his inquiry to another vendor (not competing in this solicitation) for a turnkey price on a similar tower. However, the platform engineer states that the hypothetical tower for which he sought a price quote was not as complex as the one at issue here.

I find that the IGCE does not warrant a higher level of confidence in its accuracy, when you consider the assumptions made by the platform engineer in its preparation. Further, another problem with the IGCE preparation is that no similar projects have been undertaken for some 15 years. Although ABC, Inc.'s price of $135,815.00 is $23,088.00 (17%) higher than IGCE the deviation is not considered inordinate. Finally, considering the range of offers of the competition received, I find that ABC, Inc.'s price is fair and reasonable.

EXAMPLE 3, Only One Offer Is Received

This requirement was issued to 5-members of the QVL under competitive "Best Value" award procedures. Although a number of competitive proposals were expected, only one vendor, Offeror, Inc., provided a proposal. This proposal was evaluated using the Evaluation Plan that was previously developed. The proposal was determined to be technically acceptable, as shown by records of the evaluation contained in the official contract file. With only one vendor bidding, after the proposal was determined to be acceptable, the Contracting Officer had to determine if the price proposed was fair and reasonable. A

comparative evaluation was done using the contractor's proposed rate to rates for similar level of professional service under various General Services Administration Federal (GSA) Supply Schedules. Used in the comparison was the Contract with ABC, Inc., GS-00F-0000J, year-4 rates (7-22-02 thru 7-22-03) Position Description Senior Computer Programmer, $65.59 per hour; and DEF, Inc, GS-00F-0000G, FY-02 rates, Sr. Internet Systems Programmer, $48.06/hour. The Contracting Officer obtained the published comparative price list for similar program support services using the Department of Transportation's BITS contract, and GSA IT contracts year 2. The BITS contract has a price list of services from 15 different contractors for each of the labor categories. The Contracting Officer compared the proposed rate of $50.89 per hour with those published on the BITS contract (see comparison below) along with GSA contracts for similar labor category. The prices below are on a per hour unit basis:

Labor Category	CLIN	Company	Contract	Hourly Rate
Authorware Programmer	Proposed	Offeror, Inc.	QVL	$50.89
Sr. Computer Programmer	NAT-PGR	ABC, Inc.	GS-00F-0000J	$65.59
Sr. Int.Sys. Programmer	1490	DEF, Inc.	GS-00F-0000G	$48.06
DOT-BITS-Contractors				
Applications Programmer	357	GHI, Inc.	DOT/BITS	$62.27
	357	JKL, Inc.	DOT/BITS	$59.27
	357	MNO, Inc.	DOT/BITS	$52.04
Average per hour rate	357	All 15 DOT/BITS Contractors rates		$56.27
Lowest per hour rate	357	DOT/BITS		$45.02
Highest per hour rate	357	DOT/BITS		$72.25

Basis for Price Determination:

The Contracting Officer has determined the proposed rate of $50.89 is fair and reasonable based upon comparison to published pricing for similar information technology services found on GSA's MOBIS contract, GSA published Federal Supply Schedules rates list for similar services (for current year), and the Department of Transportation, BITS contract. The Contracting Officer does consider the proposed rate to be fair and reasonable to both the FAA and the vendor. Offeror, Inc. has been determined to be a responsible contractor based upon satisfactory performance on previous procurements for the FAA.